Abstract

Title: Comparisons of softball swing at pitches from a pitching machine and pitcher

Objectives: The aim of this research is to compare the timing of players of softball within individually phases of hitting by a standard softball pitcher and a pitching machine. Another aim is to analyse individual phases of softball hitting and determine whether the training of hitting through a pitching machine is a appropriate substitute for the preparation of a standardized softball pitching which softball players experience during each match.

Methods: This research is a descriptive case study, in which we gather a large number of data from five individuals. A ride of five players and their execution of hitting approaches against a pitching machine and real pitcher was created. Subsequently the record from the camera Basler GeniCam piA640-210gc with frame rate 200 frames per second was then evaluated via of computer program *Dartfish*, which is designed for analyses of motor skills.

Results: The results show that the whole movement of players was noticeably slower, in the case of a pitching machine use. Regarding the use of a pitching machine and real pitcher, the statistic results show differences. The differences derive from the absence of conscious prediction of pitches motion in the case of the pitching machine use.

Key words: hitting, timing, perception, anticipation